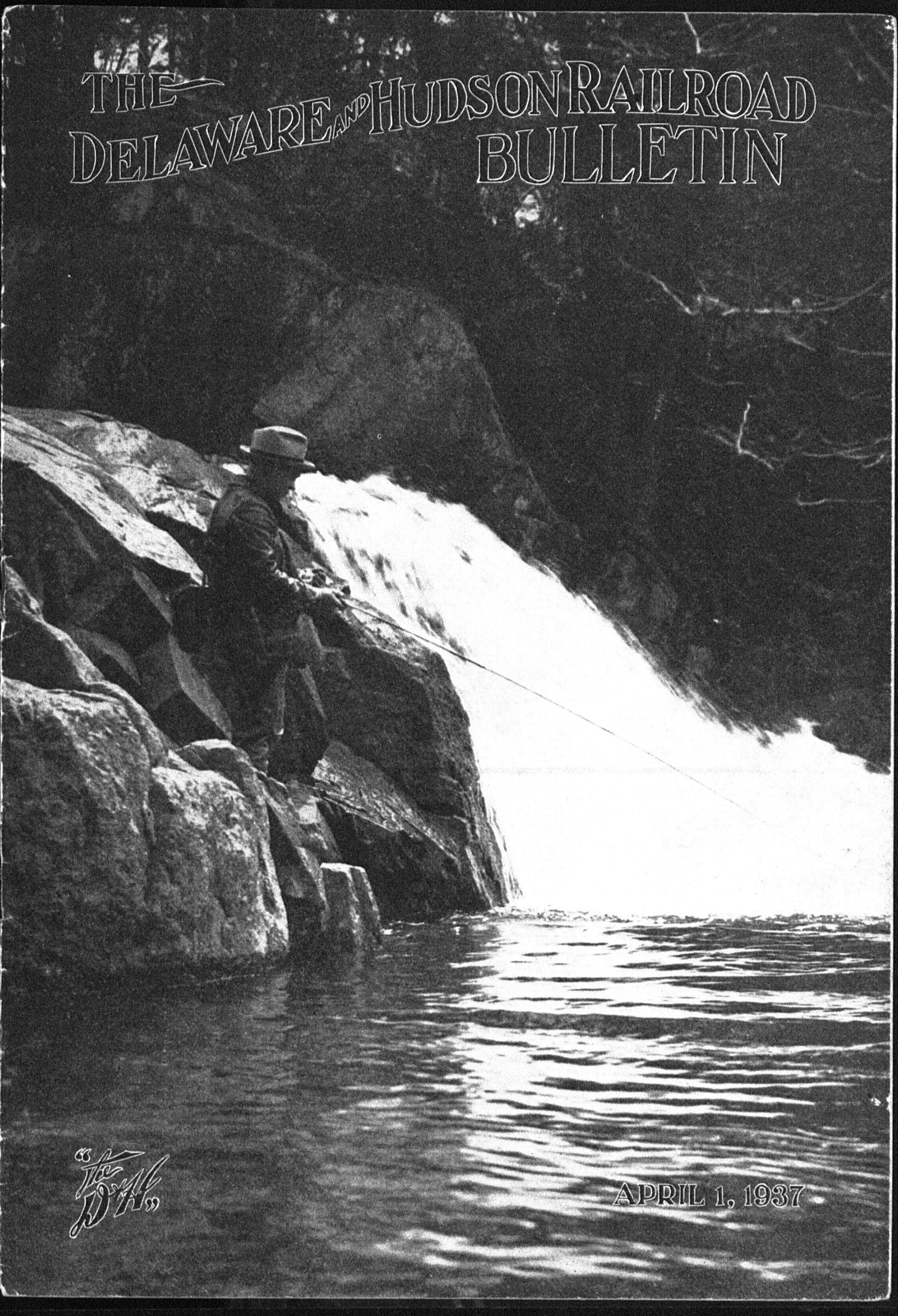
THE DELAWARE AND HUDSON RAILROAD BULLETIN



“The D&H”

APRIL 1, 1937

Out Fishin'

FISH can be bought in the market place
So it isn't the fish I'm after.
I want to get free from the care-drawn face
And back to an honest laughter.
I want to get out where the skies are clear,
And rest by the river's brink;
I want to get out where the woods are green,
I want a few hours to think.

Oh, it isn't the fish I am greedy for,
It's the chatter and song of the birds,
And the talk of the trees that I've known before;
I am weary of selfish words.
I want to stretch out, just my soul and I,
In a place from the strife afar,
And let a few care-free hours pass by,
As I think of the things that are.

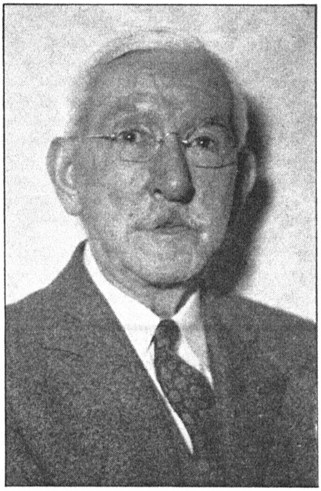
Oh, it isn't the fish that I go to get,
Though there's joy in a swishing line,
And a splendid thrill when my grip I set,
And a small-mouthed bass is mine.
But my soul seems cramped in the stilling air
That is heavy with talk of gain,
That I want to get out where the world is fair,
And there isn't so much of pain.

—AUTHOR UNKNOWN.

The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN

Railroading Since 1866

Retired Agent Reviews Two-thirds of Century With D. & H.



H. U. McMILLAN

THE snow-fighting problem was solved in a very simple and economical manner on the old Rensselaer and Saratoga's Albany-Waterford Junction line half a century ago, according to Howard U. McMillan, who began his 66-year railroading career as freight house messenger at Albany, in 1866. When one of the passenger trains hauled by "bicycle-type" locomotive *E. Thompson Gale* or *George H. Cramer* (later named the *S. M. Craver* in honor of the agent at Albany) became snowbound, Mr. McMillan was sent to the New York Central yard office with two ten dollar bills to be given to the yard master and engineer, respectively, to go and pull the stranded train back to Albany with their engine. This arrangement was infinitely cheaper for the R. & S. than purchasing, maintaining, and operating snow-fighting equipment.

Mr. McMillan, who was born at Green Island, March 11, 1858, is one of a family of railroaders, his father, brother, uncle, and nephew all serving as Rensselaer and Saratoga locomotive engineers. When his brother was transferred from the position of freight house messenger to the motive power department, in 1866, Mr. McMillan was hired to fill the vacancy at $8 per month.

The R. & S. inbound freight house, then located on Water Street, had only one track, holding five cars. Later a platform was built at the end of the track, increasing its capacity by one car. Outbound freight was handled on another five-car track at what had formerly been the shops of the Northern Railroad, one of the original links in what later became the R. & S. and eventually the Delaware and Hudson. Space for eight additional cars was provided on a track paralleling Montgomery Street, bringing the total freight house capacity to 19 small cars. One track, on Lumber Street, was still laid with wooden rails, with strap iron on top. In the summertime this track had to be inspected daily to see that the strap iron had not curled up at the ends due to expansion from the heat of the sun.

In the freight house office was a long counter at which business was transacted. To get to their desks the force lifted one section of this counter and walked through the opening. Mr. McMillan was so small when he first went to work that he could walk right under this gate without stooping.

As freight house messenger, Mr. McMillan had to fill out an arrival notice for every shipment received at Albany, then distribute them to the various consignees all over the city. At the bottom of each was a coupon which he detached when the notice was delivered to show that the consignee had been notified that his goods had arrived.

There had been no bridges across the Hudson River at Albany until that year, and rail passengers en route from New York to Albany rode on the Hudson River Railroad to Troy, thence to Albany via Waterford Junction on the R. & S., making the last lap of their journey on the often snow-bound train already mentioned.

There were, however, three ferries crossing the Hudson at Albany, operating from piers at the foot of Maiden Lane, North and South Ferry Streets. J. J. Austin, the owner of one of these lines, took a liking to MR. MCMILLAN and always gave him a new pair of boots at Christmas.

Thousands of immigrants, en route west, left the trains at East Albany, now Rensselaer, to cross the river by ferry at Albany, continuing their journey in "immigrant cars"—coaches with unupholstered, wooden seats. Immigrant traffic was so heavy at that time that the New York Central had an "immigrant station" whose agent's sole duty was to expedite their movement westward. These travelers and all their possessions were so thoroughly fumigated at New York City that they still carried the odor of disinfectant when they passed through Albany.

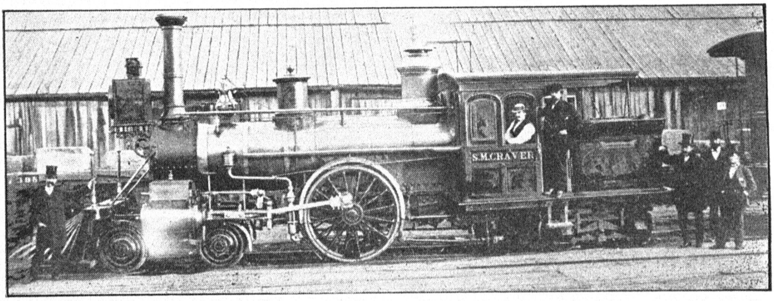
MR. MCMILLAN well recalls the construction and opening of the first wooden bridge, with a hand-operated swinging draw, across the Hudson at Livingston Avenue, Albany. The first train crossed this span February 22, 1866, with engineer "Hank" Ford at the throttle. Some years later, during a spring flood, a Troy-West Troy (now Watervliet) ferry's steam engine bacame disabled and the craft floated down the river, finally lodging under one of the spans of this bridge. As the water rose the ferry lifted one section of the bridge off its piers and both the boat and the span sank beside the bridge.

The R. & S. passenger station was then situated at the foot of Maiden Lane, on the site of the first abutment of the present New York Central main line bridge. The ticket office and waiting room were on the main floor, while the baggage room was in the basement. Outside were two tracks, one adjacent to the station platform, the other for storing cars.

Directly east of this building was the New York Central passenger car yard, in which all the switching was done with a team of gray horses. Between the horses was a heavy, wooden pole, with an iron cap at one end for pushing, and a hole for attaching a link-and-pin coupling at the other end for pulling cars. These animals were extremely intelligent, seeming to sense just when and how hard to push a car to move it where it was going, yet they were so powerful that they handled the light passenger cars with ease.

Before the development of the air brake, the R. & S. experimented with two types of "quick-acting" brakes on passenger cars. The first consisted of a heavy spring, which was wound up by moving a long lever and ratchet mechanism at the end of the car. A cord extended from a trigger-arrangement on the brake to the engine cab. When the engineer wanted to stop quickly, he simply pulled the cord and the spring applied the brakes. Somewhat similar in mode of operation was the

(Continued on page 61)



Such power stalled at the forecast of snow

A 15-Year Record

How Delaware and Hudson Folk Received Nearly 5½ Million Dollars

EXACTLY fifteen years ago today the contract under the terms of which the Metropolitan Life Insurance Company undertook to insure employes of the Delaware and Hudson Company and their dependents against the hazards of death, whether accidental or from natural causes, sickness and disability, went into effect. Three months previous, January 1, 1922, *The Bulletin* carried PRESIDENT LOREE'S announcement that the company had provided $500 free insurance against death or permanent disability for every employe with two years' or more continuous service, additional protection under the group plan being available if nominal premiums were paid by the employes, provided that at least three-fourths of these in any particular class subscribed. In addition, the Delaware and Hudson Company undertook to protect its employes against the uncertainties of loss of work by providing dismissal allowances for a period of six weeks after such loss of employment.

What were the results? Before the plan was fairly in operation, that is, in the first three months of 1922, 22 claims totaling $9,750 had been paid to beneficiaries of policies issued free to employes with two or more years of service. It is hardly fair to judge the value of insurance by such limited experience, but we now have available the record of what it has meant to Delaware and Hudson employes and their families during the 15-year period ending Dec. 31, 1936.

In this time 18,147 claims, amounting to $5,414,966 have been paid. Naturally, Life Insurance provided the major portion of this huge sum, $3,392,659 having been paid to survivors of 2,132 deceased employes, double indemnity under the accident clause being paid in 176 cases aggregating $260,000. While overshadowed as to the total paid out, Health Insurance helped in 13,526 cases to relieve the financial burden occasioned by sickness, $1,430,019 being received by such policy holders. The record shows 149 instances in which employes incapacitated for further service were paid $151,441, or more than $1,000 each.

Accident insurance was paid to 1,641 persons who suffered varying degrees of misfortune covered by this option, benefits totaling $140,369.

To 623 employes dismissed from the service during the 15-year period, the company paid $40,476 as a means of assisting them to get along while obtaining other employment.

Payments made under the group insurance plan have also been segregated according to various classes of employes. The transportation department being the largest unit naturally received the lion's share of benefits, some 5,554 claims being paid with $2,196,371. Maintenance of way came next with 5,075 claims totaling $1,293,057. Motive power's 3,373 claims amounted to $774,904 while employes of the car department entered 2,030 claims for a total of $469,760. All other departments lumped together contributed 2,115 claims aggregating $680,873.

Additional payments made since the beginning of this year swell the total of benefits paid to date to approximately $5,500,000, since during the season when illness is most prevalent claims approximate 200 a month.

Is Group Insurance worth while? Over 18,000 payments—5½ million dollars—at the times when they were most needed should answer that question.

Failure or Success?

IN his stimulating book, *Life Begins at Forty*, Walter B. Pitkin says that we all come into the world with a certain chance of acquiring a working capital of a round half million. No, not dollars—hours! Those hours will be paid in full if we are skillful enough and lucky enough to stick around until we reach threescore years and ten.

Our great sin is the measuring of everything in terms of money. We should get off the money standard, and on to the time standard in our thinking. The art of living is the art of getting the most out of the minutes that are ours. How to make every minute count for happiness, for growth, for service, for peace and contentment—that is our real objective.

The man who burns himself out piling up wealth, and then spends the sunset of his life sitting on the porch of a sanitarium watching the healthy poor go by—has failed. He has failed in his use of time—the minutes that come to him bright and shining right from eternity, just as they come to you and me. In his accumulation of millions of dollars, he has sacrificed thousands of hours of happiness. For time, not money, is the stuff that life is made of.—*The Silver Lining*.

D. & H. Installs Largest "CTC" Layout Yet

Centralization of Control of Traffic Between Albany and Watervliet in Machine in Dispatcher's Office Involves Operation of 32 Switches, 2 Derails and 56 Signals.

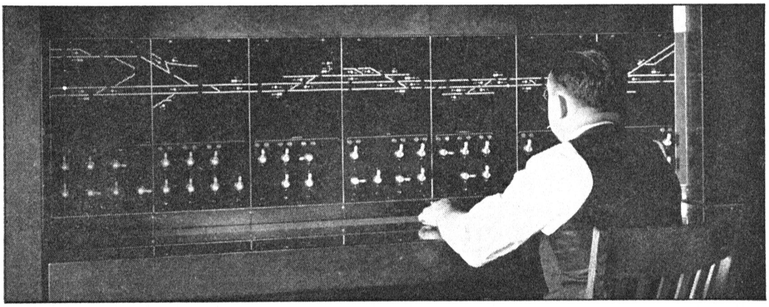
THE Delaware and Hudson Railroad has recently completed the installation of centralized traffic control on 6.6 miles of double track line between Watervliet and Albany, N. Y. Measured by equipment controlled, this is one of the largest projects of this type constructed since the introduction of "CTC," as it is now commonly called, on the New York Central Lines between Stanley and Berwick, Ohio, in 1927. It involves the control of 38 switches, 2 derails, and 56 signals. This territory is a portion of the main line northward from Albany to Rouses Point, N. Y., on the route to Montreal. Daily traffic includes 16 regular passenger trains and 13 trains with passenger equipment moving between the coach yard at Colonie and the terminal at Albany. In addition there are approximately 300 switching, interchange and locomotive movements to and from the Colonie Locomotive and Car Shop.

The installation replaces four interlocking plants and hand-throw switches at two outlying crossovers formerly handled by train crews. Operation of the switches at all these locations as well as of the signals for directing train movements is under the control of the operator of the machine located in the chief train dispatcher's office at Albany.

The early installations of "CTC" employed numerous line wires; one wire to each point in the field to be controlled. These systems operate well but the line wire costs become excessive when long distances and many field devices are to be brought under control. Hence the trend toward longer and larger installations resulted in the development of "CTC" systems that need only two or three line wires throughout the territory. So today the work of transmitting the "indications" that describe the conditions of the field apparatus and the locations of trains is done by what is known as Coded "CTC."

In a coded system the various field stations are selected and controlled by sending a specific code assigned for a particular purpose. The code is quickly transmitted and the line wires are then free to carry another code going to perform some control at another field station, or to carry indications back to the control office to show the latest position of trains, etc. In this way the same two or three line wires that extend the full length of the territory are made to serve the whole system.

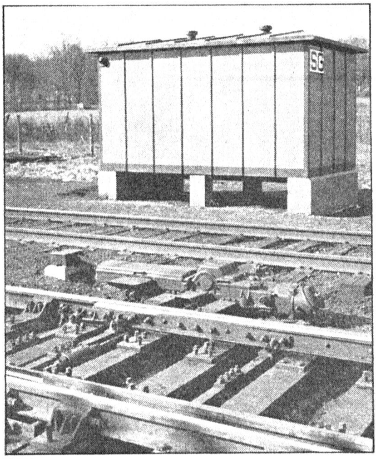
In "CTC" a code consists of a series of electrical impulses which are applied in rapid succession to the line wires. Character is given to these codes



Operator of Centralized Traffic Control, Albany by a deliberate choice in the polarity selected for each impulse, or the length of time that each impulse is permitted to last. Furthermore, the spaces between the impulses are utilized by making each space long or short according to some predetermined pattern. These characteristics are used separately and they are used also in combination and some of the code systems in use provide simultaneous transmission in both directions over the same line wires. These systems are known as Duplex "CTC" systems.

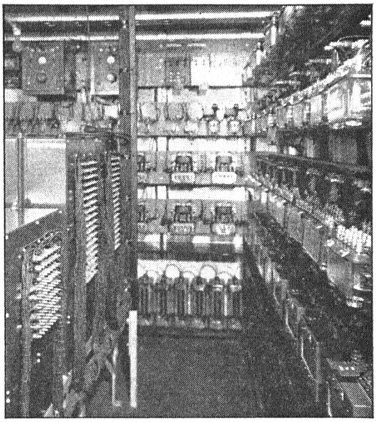
The codes to perform the many controls and to transmit the hundreds of indications that are used to constantly describe the field conditions are made up automatically. For a control, the code is set up and transmitted when the operator positions the control levers and pushes the start button for the station to which he wishes to send the controls. Similarly, but entirely automatically, each field station starts the "CTC" transmitting system whenever a train arrives or leaves or some other field condition changes; and then transmits a code which automatically identifies the particular field station and then displays the latest indications from the station on the proper section of the diagram on the control machine, in front of the operator.

If two or more field stations attempt to send indications at the same time the system automatically gives priority to one of the stations and locks out all others until the superior station has finished sending its code. This station priority can be given in different ways but the usual practice is to make the station nearer the control office the superior station.



Cabin Housing Relays and Telephone. Power Switch Machine, in foreground

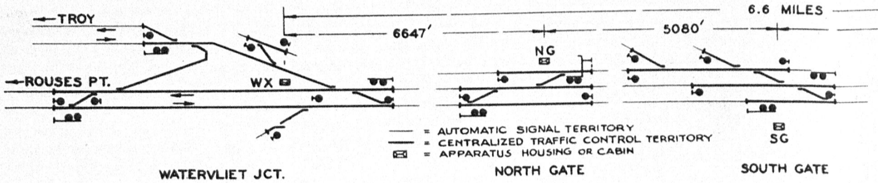
A similar set of conditions arises when an operator pushes two or more start buttons in rapid succession and here again priority is automatically given to the controls going to one station and all others are stored until the superior code has been sent.



Relays inside Cabin

With Duplex Systems there is no conflict between controls going out and indications coming in because these systems can handle both simultaneously. When the duplex feature is not provided priority is given to outbound controls so that if the system happens to be busy bringing in indications the operator can take over the line and send controls, after which the system will automatically resume the work of transmitting any indications that may be waiting to come in to the control office.

It will be interesting at this point to learn what acts are performed by the codes. The end of a passing siding is a very common example of a field location. Such a location has a motor operated switch and a group of electrically operated signals. These functions or devices are electrically interlocked by means of local circuits so that no unsafe operation can take place; however, if local safety circuits permit, the operator can by means of "CTC" cause


TROY
ROUSES PT.
WX
6647′
NG
5080′
6.6 MILES
— = AUTOMATIC SIGNAL TERRITORY
— = CENTRALIZED TRAFFIC CONTROL TERRITORY
⊠ = APPARATUS HOUSING OR CABIN
SG
WATERVLIET JCT.
NORTH GATE
SOUTH GATE

CENTRALIZED TRAFFIC CONTROL TERRITORY

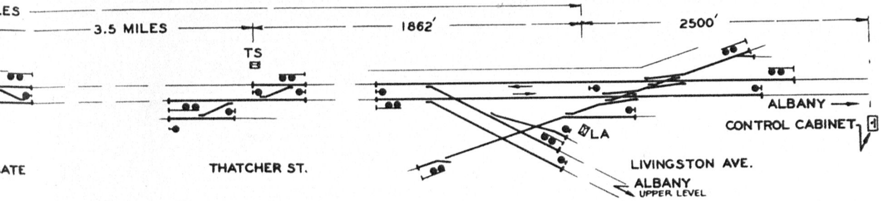
the motorized switch to "line up" for the main track or for the side track. He can also cause the signal to clear for a train movement to the right or left across the switch. He can also cause signals to go to the "Stop" position if he wishes to hold a train at the location. Thus it becomes unnecessary to stop the train to throw the switch by hand and then replace it in its original position after the train has passed over the switch. The operator does all this from his control machine and very quickly—with the result that many times trains pass each other, one on the side track and the other on the main track, without either train stopping. A movement like this is called a "non-stop" meet or pass depending upon whether the trains are running in opposite directions or in the same direction.

The usual indications that are supplied by the "CTC" system in describing the conditions at a typical end of siding location are the position of the switch, the position or aspect displayed by the signal and the location of trains. These elements in the picture of field conditions are displayed on the diagram on the control machine at the control office by means of small electric lamps which are lit or extinguished as dictated by the field conditions and transmitted by the "CTC" code system.

Audible indications are also furnished. For example, when desired by the railroad, the entrance of a train into the track section approaching a location can be made to sound an annunciator bell in the control office to call the operator's attention to the fact that a new train has entered his territory or that some train is approaching a location where it will need to have a signal "cleared" if it is to proceed.

If now, after watching the operator at his control machine, we ask the signal maintainer to open the back of the control machine, we will see that the machine contains a large number of small electrically operated relays. These relays and similar banks of relays located at each field location perform practically all the operations that are required to deliver the controls and bring in the field instructions. As we are looking at them the maintainer will trace the progress of a control being sent out. He will call our attention to a bank of relays which are operated directly from the control levers and push buttons on the operating panel. He may be able to show us one of the "start" relays picking up as the operator pushes a start button. From then on the operation will be too rapid for us to follow with our eyes but it will be explained to us that from the first bank of relays the operation moves to another bank of relays called the code unit or stepper unit. If we watch this unit we can see a series of relays operate one after another in rapid succession. The whole operation or "cycle" will be over in three or four seconds but during that brief interval a complete code will have been dispatched. Each one of those relays in the stepper or code unit, as it operated, marked off one element of the code and with each operation the associated impulse was applied to the line circuits and carried out to the relays at the field locations. The field relays respond to each impulse as it comes over the line and if we visit a field location we will see, here also, a series of relays that operate in rapid succession. They are the field stepper or code unit relays and they keep in step with the relay operations at the control office. As each one operates it marks off one element of the code being received from the control office.

Each element of the code has some particular work to do and as each relay marks off a step of the code the character of the impulse sent out by the control office will be stored away in a second bank of relays to carry out the control desired by the operator. If, for example, the code is one made up of positive and negative electrical impulses the arrival of a negative impulse on a certain step in the code would result in moving the switch to "line up" for the side track. If now the operator sends the code for making the switch "line up" for



ALBANY N.Y. TO WATERVLIET JCT., N.Y.

the main track the negative impulse will be replaced by a positive one.

The operation for sending indications from a field location is somewhat different but the same general scheme or principle of operation is employed. The field location imparts a distinct characteristic to each element of the code and the control office relays receive these elements one at a time and translate them into a picture of field conditions by lighting the proper lights on the operating panel in front of the operator.

The accompanying diagram gives a good idea of the Delaware and Hudson installation. From the Livingston Avenue interlocking, 2,000 feet north of the Albany station, the double track main line extends through on the lower level of the station, while a double track branches off and connects with New York Central tracks in the upper level of the station. A single track line of the New York Central crosses all four of the main tracks mentioned, and there are two double-slip switches as well as single switches and crossovers as may be seen from the track plan.

At Thatcher Street, 3,700 feet north of the Albany station, there is a crossover between the main tracks and a crossover from Track 1 to a yard switch lead, this layout being used frequently by switch engines serving various industries.

The connection from the double track main line to the south end of the Colonie freight and passenger yards and repair shops is located at SG, South Gate, about 4.3 miles north of Albany, where a mechanical interlocking with 30 working levers had been in service since 1918. A side track used principally for northward trains entering the yard extended from SG southward along the east side of the main line for 2,600 feet. At the time this plant was placed in service an electric switch machine and necessary signals were installed at this outlying switch, controlled from the tower. This was one of the early remote control projects, and at the time it was installed the control of a switch 2,600 feet from the tower was considered quite an advance in the signal art.

As the number of train movements in and out of the yard at this time does not justify the switch at the south end, it was removed and the crossovers between the main tracks and between the northward main track and the yard track near SG tower were relocated. This left two crossovers and two yard lead switches to be equipped with electric switch machines at this layout, in order to include it in the "CTC" project and thus permit the removal of the entire mechanical interlocking at SG.

The connection from the double track to the north end of the yards at Colonie is located at NG, North Gate, which is 5,080 feet north of South Gate.

At WX, Watervliet, 6.6 miles north of Albany, a double track line branched off to the east, extending across the Hudson River to Troy, N. Y. A second junction of this Troy line with the double track main line is so arranged as to form a wye, all of the switches and signals pertaining to which have been operated and controlled by a 52-lever electric interlocking in service since 1904.

At the time this double track wye and interlocking were constructed, 33 years ago, passenger trains were operated at 30-minute intervals in each direction between Albany and Troy. With the development of highways and new bridges, this service has been eliminated and only one passenger train is now operated between Troy and Albany. Trains operating between New York and Montreal are received from the New York Central at Troy and operate through the second junction of the wye. Therefore, it was practicable to simplify the track arrangement, using a single track around the wye and removing a number of switches and signals. These changes reduced the layout to five single switches and three crossovers, all of which could be operated as a part of the new project.

The "CTC" machine in the dispatcher's office

(Continued on page 60)

The
Delaware and Hudson Railroad
CORPORATION
BULLETIN

Office of Publication:
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ALBANY, N. Y.

PUBLISHED MONTHLY by The Delaware and Hudson Railroad Corporation, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

All communications should be addressed to the Supervisor of Publications, Delaware and Hudson Building, Albany, N. Y.

Vol. 17 April 1, 1937 No. 4

Criticism

IT'S easy to give but hard to take! We recall a boy in a cadet battalion who was always grumbling in the ranks about the ineptitude of the commanding officer. One day his remarks reached the sympathetic (?) ear of the captain who immediately ordered the critic to take command and maneuver the company. Having commanded "Forward March" in the approved manner and set the column in motion, our hero became impotent, despite the fact that the unit was striding straight for the bank of a very large and wet river. The nearer they approached the bank the more confused became the man so recently elevated and unaccustomed to command. Only the intervention of the captain halted the men at the water's edge, the critic returning to his place in the rear rank, his criticism effectually silenced.

A friend told of an incident which occurred during a fire which called out all the apparatus in the city in response to a general alarm. Subsequently another alarm was sent in by people a mile away who, seeing the blaze, felt called upon to do something. When a company of somewhat excited firemen who had left the fire to respond to the new alarm arrived and asked where the fire was, their critic observed "anyone could see it lighting the whole sky." It didn't occur to him that they knew all about *that* fire, having just left it, and were expecting to find another in this new location!

So it is with much of the criticism leveled at the railroads and their employes. Unfortunately, it cannot be dismissed thus easily. Instead, it is doubly necessary that everyone connected with the roads try to perform his duties, and to so conduct himself in his relations with railroad patrons, either actual or potential (and this includes everybody), that the amount of criticism is reduced as much as possible.

This is not to say that the railroads believe themselves to be above criticism, for there are many things which can and are being improved as fast as conditions will permit. The main task is to show by our attitudes as individuals that we are doing our best to create pleasant relations with those who ship or travel on our trains or who are our neighbors along the line.

We recently heard of a ticket agent on a connecting line who was subjected to extremely insulting treatment by a woman passenger who, having just purchased railroad and Pullman tickets, accidentally dropped the former on the floor and profanely berated the agent for not having given it to her. Omitting the details, we wish to express our admiration of a man who could take such unjust criticism, remain a perfect gentleman, and carry on, though "burning up" inside.

Sometimes it is better to "take it" than to attempt to reply, though the employe who is well-informed as to the company and its activities can often render a real service in correcting mistaken ideas which may be advanced during a casual conversation.

Long May It Wave!

ANNOUNCEMENT was recently made of the sale of The Champlain Transportation Company to H. W. Corbin, of Grand Isle, Vermont. Incorporated in 1826, the company succeeded the Lake Champlain Steamboat Company, chartered in 1813, which became involved in financial difficulties in 1833, its property being purchased by The Champlain Transportation Company.

Col. LeGrand B. Cannon purchased control of the company in 1856, later transferring his interests to the Rensselaer and Saratoga Railroad. With the leasing of the latter by the Delaware and Hudson, in 1871, our company began its 65 years of steamboating on Lake Champlain.

The original operations were between Whitehall, N. Y., and St. Johns, Canada, with stops at intermediate landings. As the result of the construction of rail lines in Canada, the northern terminus was changed to Rouses Point in 1851. With the extension of railroad service, the southern terminus shifted from Whitehall to Fort Ticonderoga in 1875, the northern from Rouses Point to Plattsburg in 1876.

This through line service was discontinued in 1932, ferry operations between Burlington and Port Kent and occasional excursions having comprised the activity of the company since that time.

Travelers throughout the world who have patronized the boats of The Champlain Transportation Company will be glad to know that, though under new ownership, the name and traditions of the oldest steamboat company in continuous operation in the world will be carried on, the various ferry operations of the new owner being consolidated under one flag.

Speculation

IN no other activity do men display such unreasonableness and childish hallucinations as in their attitude toward speculation in the stock market, says *Through the Meshes.*

Whereas in the lowest-income group, people are fond of saying and believing that the world owes them a living, in the highest-income group people seem to think, even though they do not say it, that the stock market owes them a fortune.

The ordinary man who ventures into the stock market has saved, let us say, through years of scrimping, $8,000. His salary is $4,000 a year. If he manages to put by $400 a year he thinks he has done well, and he has.

One day he decides that the going by the thrift route is too slow. He buys securities listed on the New York Stock Exchange and, to give him the benefit of the doubt, we will assume that he buys with outright cash, not on margin. In the course of a year, we will further assume that his profit from appreciation is $4,000, or 50 per cent. Such things have happened in recent years.

What is the reaction of the man to this profit? Nine times out of ten he is downright contemptuous. He tells himself that he has only begun to make money. He visions building his original capital of $8,000 into an estate of $80,000 before the end of the decade. He will not face the fact that in a single year he has increased his capital almost as much as he could save in ten years.

Perhaps his house is mortgaged, but will he take his profit and pay off the loan? Not he. He tells himself that a mortgage on a house is a good thing because it improves the salability of the property. Such fallacious reasoning, the natural product of greed, leads to the usual disaster. One day the market sells off sharply and the bulk of his paper profits vanish. He hangs on and perhaps a later rise gives him another glimpse of financial independence. In the end the market sinks drastically, wiping out not only his profit, but part of his principal.

The moral of this dissertation, if any, is that the stock market, with rare exceptions, pays profits only to those who cash their profits. A thousand dollars of stock-market money is just as real as a thousand dollars of hard-earned money. But not one man in a hundred sees it that way.

It's a fortune or nothing with most of us. And so we get nothing.

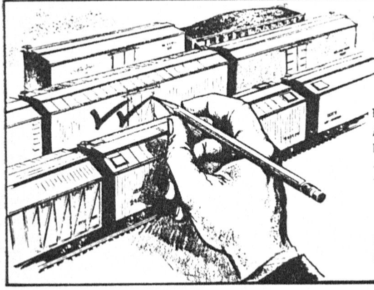
Quite by Occident

A British tourist journeyed from Cairo to the Pyramids. Fired by romantic tales, he felt sure he had reached the land where nothing savoring of western civilization would be allowed to disturb the Arabian Nights atmosphere.

When he reached the Pyramids and was hoisted to a camel by a picturesque Arab, he quivered with delight. But he had a rude awakening.

"What's your camel's name?" he asked the Arab.

"Greta Garbo," was the answer.—*Tit-Bits.*



"CHECK AND DOUBLE CHECK"

THE TWO MILLION FREIGHT CARS OF THE AMERICAN RAILWAYS TRAVEL MORE THAN NINETEEN BILLION MILES A YEAR. YET EVERY MINUTE OF EVERY DAY, THE LOCATION OF EVERY CAR ON MORE THAN 400,000 MILES OF TRACK IS KNOWN AND RECORDED. "CHECK AND DOUBLE CHECK!"

HERE IS AN EXCELLENT EXAMPLE OF THE THOROUGHNESS OF RAILROAD MEN AND THE EFFICIENCY OF RAILROAD TRANSPORTATION!

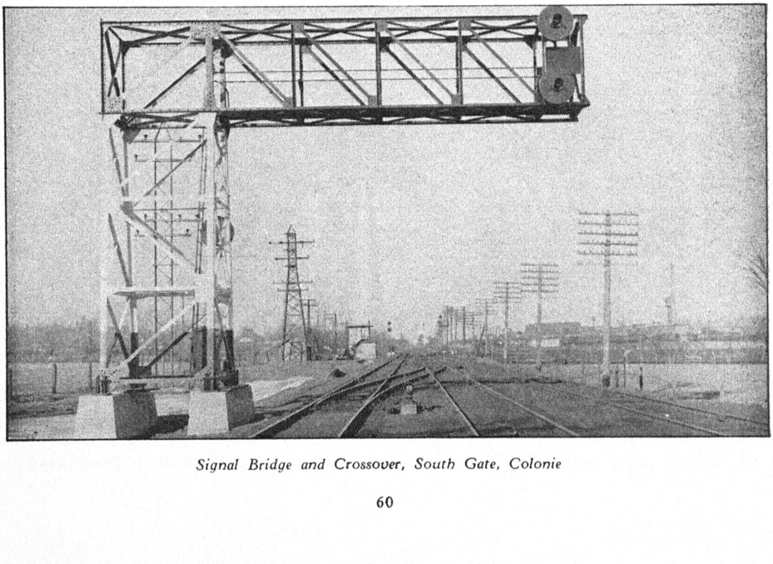
"CTC" Installation

(Continued from page 57)

at Albany controls the switches at all the five layouts detailed above, as well as the signals to direct train movements in either direction on either track between Thatcher Street and Livingston Avenue. This machine is constructed according to a new unit panel type design developed by the General Railway Signal Company. On the face of the machine the track diagram and levers for the control of field functions in one general locality are assembled on one panel 10 inches wide and 18 inches high. The coding equipment operating in connection with the switches and signals controlled is arranged in a framework the same width as the panel, and this frame can be pulled out to the rear of the machine for inspection. With this type of construction the machine is made up of a series of units which are fitted together to form a compact whole. When changes or additions are made to the "CTC" system, additional units can be inserted at any point or added at either end as required, without changing existing units. This control machine now has 19 levers for the control of 56 signals and 24 for the control of 38 switches and 2 derails. These levers are arranged in two rows on the lower portion of the vertical panel of the machine, the signal levers being in the top row and the switch levers in the bottom row. A track and signal diagram extends across the panel above the levers, small lamps in the track diagram indicating the position of trains on main tracks throughout the entire controlled area.

Telephone for Train Crews

When in the normal position, all levers point upward. The majority of the signal levers control signals for two directions of traffic, the levers being turned 90 degrees to the right to control southward signals and 90 degrees to the left to control north-



Signal Bridge and Crossover, South Gate, Colonie ward signals. Small indicator lamps just above the signal levers have an enclosed arrow and are lighted when the signal controlled by the lever indicates proceed. The switch levers, located in a row just below the signal levers, are turned 90 degrees to the right to reverse the corresponding switch. A small lamp in the face of each switch lever is lighted from the time the lever is moved until the switch machine for the respective switch has operated and locked up in the position corresponding to that of the lever. In other words, this is an out-of-correspondence indication. When making a line-up, the operator positions the switch and signal levers in a vertical row and then pushes the button below the two levers of that vertical row. This action causes the control code to be sent out on the line.

When a train is stopped by a signal, or a switching crew is ready to leave a siding or requires the use of the main line, a member of the crew calls the operator by telephone, an instrument being located near each home signal and at a number of industrial sidings throughout the territory. A loud speaker in the control office carries the message to the operator without necessitating the constant use of a headset, the transmitter hanging from his neck for greater comfort.

Between the switch and signal layouts which operate under "CTC," train movements are controlled by automatic block signals just as was the case with manual operation at junction points.

The Bulletin of May 1, 1931, contains a description of the first "CTC" installation on the Delaware and Hudson, between Lanesboro and Center Village, Pa., which also happened to be the first instance in which the three-wire system just then developed by the General Railway Signal Company had been used. Experience with this has been satisfactory, tending to substantiate the claim that "CTC" increases train operating speeds 36 to 87 per cent, thus increasing gross ton miles per train hour and track capacity. Increased safety is also claimed as the result of eliminating written train orders, speedy detection of broken rails, and the ability of the operator to hold trains at intermediate points when danger threatens.

Weighing a Pig

"We never needed any of them new-fangled scales in Ireland," said O'Hara. "There's an aisy way to weigh a pig without scales. You get a plank and you put it across a stool. Then you get a big stone. Put the pig on one end of the plank and the stone on the other end and shift the plank until they balance. Then you guess the weight of the stone, and you have the weight of the pig."

Foolish Laws

OUR law-making bodies pass many laws that seem foolish. One in Pennsylvania forbids singing in the bathtub. In Kentucky anyone operating a still must blow a whistle. Impersonating Santa Claus on the street is illegal in Minneapolis. In West Virginia it is against the law to sneeze on Sunday. In Newark, New Jersey, it is illegal to sell ice after 6:00 p. m. without a doctor's prescription. Zion, Illinois, makes it a crime punishable by a prison sentence to make ugly faces at anyone.

Railroading Since 1866

(Continued from page 52)

Cramer brake, developed later. Under this system a spring was housed in a large drum situated on the shaft under the hand brake wheel, tension being applied to the spring by turning the drum to the left. The brakes were applied by pulling a cord. The objection to both of these systems was that the train crews had to spend all their time winding up the springs.

After seven years as messenger, MR. MCMILLAN became a clerk, it being his duty to make out a bill for every inbound shipment received during the day, and compute the total amount. He then had to copy into a large book the information from the waybills received with the shipments and total the day's business. If the two sums agreed, his work was done; if not, he had to find the error.

While he was serving as clerk, the company built a new freight house at Livingston Avenue. Although the agent tried to persuade the officials to provide an upstairs office, his suggestion was not followed. Years later, in 1913, the downstairs office was flooded, the desks floating around just under the ceiling. All the office record books, which had been stored in the safe, were made out in black ink, with red ink column footings. When the water receded it was found that the black ink was unaffected, while the red figures had disappeared, and all the columns had to be added over again. When the water began to rise MR. MCMILLAN and AGENT F. E. VOSBURGH had all the records and other valuables at the Church Street freight office placed on improvised shelves just under the ceiling and they were untouched by the water.

In 1884 MR. MCMILLAN was made agent at the Livingston Avenue freight house, while Paul Wadsworth was agent at Church Street. The two offices were again combined in 1890, Mr. A. T. Benjamin becoming agent, while MR. MCMILLAN was placed in charge of car service and demurrage records. Every day at least 20 carloads of hay and 50 of lumber were unloaded on barges at North Albany, while from 300 to 700 carloads of grain were in the local yards at all times. It was up to MR. MCMILLAN to know the contents, origin, destination, and other particulars about all of these cars. Every day the agents along the line wired in their car needs and he saw that they were supplied.

In 1898 MR. MCMILLAN, who joined the National Guard in 1888, was called for service in the Spanish-American War as second lieutenant in the First New York Infantry Volunteers. After a period of training at Camp Black, Long Island, they started for the Philippines, but while passing through Ogden, Utah, they received word that the United States was to annex the Hawaiian Islands and his unit would be stationed there. While in Hawaii he served as acting captain for some time, as well as instructor of recruits, and judge advocate of the garrison court. At the time of his retirement, in 1906, he held the rank of major of the Tenth Infantry.

Returning to Albany, he was appointed assistant cashier at the freight house in 1904, the position he held until he retired on pension, March 1, 1933. MR. MCMILLAN is a member of The Delaware and Hudson Veterans' Association and the Spanish War Veterans. He and Mrs. McMillan live at 540 Hamilton Street, Albany.

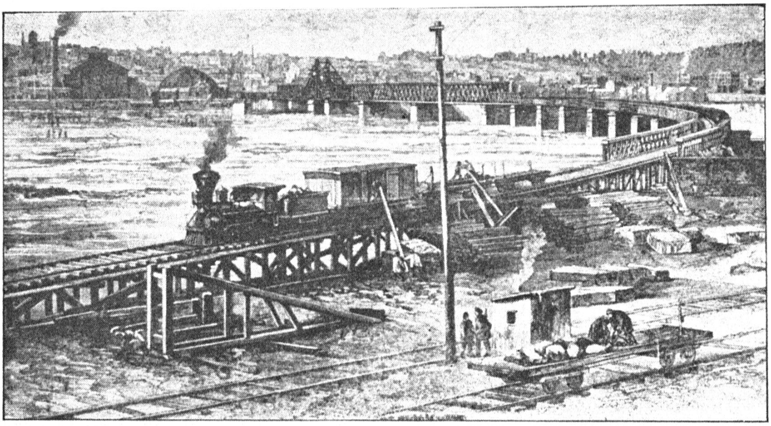
Whence Titles?

WHERE do writers get the titles for their books? An editorial writer of the *Baltimore Evening Sun* recently revealed that ten lines from Shakespeare's *Macbeth* furnished the source of the titles for five modern books. The lines are:

> "Tomorrow, and tomorrow, and tomorrow,
> Creeps in this petty pace from day to day
> To the last syllable of recorded time,
> And ALL OUR YESTERDAYS have lighted fools
> The way to DUSTY DEATH. Out, out BRIEF CANDLE!
> Life's but a walking shadow, a poor player
> That struts and frets his hour upon the stage
> And then is heard no more: it is a tale
> TOLD BY AN IDIOT, full of SOUND AND FURY,
> Signifying nothing."

The titles are: "Told by an Idiot" by Rose Macaulay; "Sound and Fury" by James Henle: "Brief Candles" by Aldous Huxley; "All Our Yesterdays" by H. M. Tomlinson; and "Dusty Death" by Clifton Robbins.

"These, no doubt," says the *Sun* writer, "represent the best, the really whacking sounds, in Macbeth's tragic philosophizing, but it is quite possible and even likely, that five more titles will come out of it, making one title per line. What author has written ten more resounding lines than these?"



First Bridge over Hudson at Albany, opened February 22, 1866

Clicks from the Rails

A Missing Cat Mystery

was cleared up in surprising fashion when a trunk was opened after a two-day railway express trip—the cat jumped out of the trunk, none the worse for its experience. The feline had disappeared from its owners' home at Great Neck, N. Y., the day the expressman came to get a trunk in which their belongings had been packed for a trip to Chatham, Mass., and had finally been given up as lost. After its release it was put in a box for shipment back home. When the expressman remarked that there wasn't much provision for ventilation in the box, the owner said "Why that cat can live in a vacuum." and related her experience.

An Auto Crash Victim

was saved from almost certain death by the quick action of a Southern Pacific train crew. While driving in a blinding rain, the motorist ran off the road, his car overturned, and he was rendered unconscious. The crew of a passing train stopped, backed up, picked up the injured man, and took him to the next station, from which point he was rushed to a hospital by automobile. The attending surgeon said an artery had been cut and the man would undoubtedly have died but for the prompt and intelligent action of the train crew.

Dogs Travel by Rail

more than any other animal, 11,000,000 canines having been transported by Railway Express last year. Individual breeders ship as many as 250 dogs by rail daily. Bulldogs stand travel well while high-spirited collies, setters, and some terriers require greater care, being as temperamental as opera singers. Strangely, wild animals are better travelers than dogs, apparently dozing through most of the trip, whereas dogs are constantly on the alert for new sights, sounds and smells.

A Fast Freight Train

was rumbling by V. D. Smith, who was sitting dejectedly on the running board of his car "out of gas" when he saw a trainman inquiringly waving a two-gallon can. Smith nodded vigorously. "Get it at the next switch," shouted the trainman, dropping the can as he passed. Smith poured the gasoline into his car, drove ahead and delivered the can and his thanks at the switch where the train had stopped. There is another man who will always ship by rail.

Elephants Never Forget

as was again proved recently in Germany. Two years ago an elephant, arriving in Goole Dock, stepped into a waiting railroad car and broke through the floor. After traveling all over Europe by rail he again arrived at Goole, but no amount of coaxing, bullying, or bait could entice him inside the car. After a five-hour battle of wits he was chained to one of his companions and was dragged aboard.

Dual-Gauge Track Days

are pretty much a thing of the past in this country, though many old-timers recall the days of three-rail track on various sections of the Delaware and Hudson, what with standard, gravity (4'-3"), the 6-foot gauge of the old A. & S., and the narrow track of the Chateaugay (3'). Between Sweden and Finland is a bridge on which it is necessary to lay four rails though only two gauges are used, the difference between the Swedish 4'-8½" and the Russian 5' tracks used in Finland being so slight that the usual expedient of using three rails is impossible. A similar condition exists on the 10-mile stretch from Tarmont in Poland to Dunaberg in Latvia at which point may be found side by side rolling stock of Russian, Polish, Lithuanian, Latvian, Estonian and German railways.

A Woman Was Saved

from certain death under the wheels of a Norfolk & Western freight train by an alert trainman. While riding the first of five cars being switched, R. L. Reid saw a colored woman slip and fall across the tracks when only seven feet in front of the string of cars. Leaping to the ground he pulled her clear of the tracks, although part of her clothing was run over. This was the seventh instance in which N. & W. employes had saved people from death in less than a year.

Glass Rails

were proposed for railway service by Friedrich Siemens, of Dresden, back in 1886. He reported that he had succeeded in casting glass in the form of rails, which would be no more expensive than iron, and would have the advantage of being transparent, hence any flaws could be detected before laying the track. Tests were actually made in the glass factory to see if the glass rails would be suitable for railroad service.

The International Boundary

between the United States and Canada is crossed by railroads at 50 points, excluding car ferries and counting different railroads using the same track or set of tracks only once. This is far more than the crossings of any other international boundary in the world; our Mexican border, for example, has only 11.

Divorce Proceedings

in a Spokane, Wash., court took an amazing turn when the woman involved testified that she had married the man to satisfy her long desire to travel. When asked by the judge, "Why did you marry this man?," she calmly replied, "So I could get a pass and travel on the railroad."

Appreciation

I SLEEP, I eat and drink, I read and meditate, I walk in my neighbor's pleasant fields, and see the varieties of natural beauties, and delight in all that in which God delights—that is, in virtue and wisdom, in the whole creation, and in God himself. And he that hath so many causes of joy, and so great, is very much in love with sorrow and peevishness, who loses all these pleasures, and chooses to sit down upon his little handful of thorns.
—JEREMY TAYLOR.